

REMARKS

In reply to the Final Office Action dated June 4, 2009, please reconsider the present application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering the application.

Status of Claims

After this amendment claims 1-31 are currently pending. Claims 1, 8 and 31 are independent.

Claims 1, 5, 8, 9, 17 and 27-31 are rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,177,931 ("Alexander"). Claims 2-4, 10-13, 16 and 22-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alexander in view of U.S. Patent Application Pub. No. 2005/0235318 ("Grauch"). Claims 6, 7, 14, 15 and 18-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alexander in view of U.S. Patent No. 6,981,040 ("Konig").

Claim Amendments

Claims 1, 8, 30 and 31 are amended. No new matter is added.

Rejections Under 35 U.S.C. § 102(e)

Rejections of claims 1, 5, 8, 9, 17 and 27-31 are respectfully traversed because for at least the following reasons, Alexander does not disclose all of the claimed limitations.

According to MPEP §2131,

‘[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.’ (Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). ‘The identical invention must be shown in as complete detail as is contained in the ... claim.’ (Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, *i.e.*, identity of terminology is not required. (In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)).

Independent claim 1 requires, in part,

selecting a plurality of predetermined demographic groups including externally selected characteristics to associate viewers with; recording a viewer's monitor behavior with data item variables including watched channel, watching start time, and at least one of watching date and watching duration; associating a particular demographic group of the plurality of demographic groups with the viewer; from a server-side system, inputting historical data information regarding demographic information tagged to the viewer for the viewer's demographic group; inputting preferred program guide information for the demographic group; and at a client-side system, associating the program guide information with the viewer's monitor behavior and defining therefrom a knowledge base with demographic group cluster information of the viewer in terms of statistical state machine transition models (emphasis added).

Independent claim 8 requires, in part,

selecting a plurality of predefined demographic groups including externally selected characteristics, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information; associating a particular demographic group of the plurality of demographic groups with each viewer based on monitor behavior; capturing state transitions by defining monitor behavior in a plurality of statistical state machine families each representing viewing behavior of the particular demographic group; at a client-side system, combining the statistical state machine families into global statistical state machines defined in a global probability density function; updating and reinforcing the global probability density function upon determining that a given probability function

has a higher confidence level than a previous probability density function; and outputting a global profile based on the global probability density function, wherein the global profile is suitable for determining programming content of a television server for classes of viewers (emphasis added).

Independent claim 31 requires, in part,

selecting externally generated groups defined by externally selected demographics associated with a plurality of external past viewer's monitor behavior; recording a current viewer's monitor behavior with data item variables including watched channel, watching start time, and at least one of watching date and watching duration; associating a particular group of the externally generated groups with the current viewer based on the current viewer's monitor behavior; from a server-side system, inputting historical data information regarding demographic information and monitor behavior tagged to the viewer for the viewer's particular associated group; inputting preferred program guide information for the particular associated group; and at a client-side system, associating the program guide information with the viewer's monitor behavior and defining therefrom a knowledge base with associated group cluster information of the viewer in terms of statistical state machine transition models, wherein the selected generated groups are predefined externally to the client-side system and the server-side system (emphasis added).

Alexander discloses an EPG system that determines user characteristics. Alexander further discloses determining characteristics of a viewer for a viewer's individual profile and can compare one viewer's individual profile to other individual viewer's profiles (where the profiles may contain some demographical information (Alexander, col. 30, lines 17-44). Distinguishable, the present invention uses predetermined demographic groups from outside resources that include viewing monitor information and viewer demographic information that an advertiser or content provider is interested in (i.e., externally preselected) (see pub. application par. [0094]).

It is clear that Alexander does not teach or suggest “a plurality of predefined demographic groups including externally selected characteristics, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information” (emphasis added) as required, in part, by amended claims 1 and 8, or “selecting externally generated groups defined by externally selected demographics associated with a plurality of external past viewer’s monitor behavior; recording a current viewer’s monitor behavior with data item variables including watched channel, watching start time, and at least one of watching date and watching duration; associating a particular group of the externally generated groups with the current viewer based on the current viewer’s monitor behavior” or “the selected generated groups are predefined externally to the client-side system and the server-side system” (emphasis added) as required, in part, by amended claim 31. It is also clear that Alexander does not teach or suggest using external selected groups where the groups use other external viewer information. Alexander simply uses a profile program to determine a viewer’s individual profile, which is internal to the system, and compares profiles of others that were also internally created to determine viewer potential interest in a subject, product, theme, movie, etc.

Additionally, amended claim 30 requires, in part, “each of the plurality of demographic groups is selected based on predetermined criteria selected external to the server-side system and the client-side system” (emphasis added). Alexander, however, teaches that viewer characteristics are determined internally. Therefore, amended claim 30 is also patentable over Alexander for at least these reasons.

Moreover, Alexander the internal viewer profiles that Alexander compares a particular viewer with are not grouped. Further, the viewer profiles of other viewers are not selected demographic groups used to associate viewers with. The other viewer profiles are simply characteristics and preferences of other individual viewers that are used for a comparison in order to determine the probability that a particular viewer may be interested in a particular subject, product, theme, movie, episode, etc. (Alexander, col. 30, lines 38-44).

Additionally, the viewer's profile information is not used as input that would effect a particular group, let alone any other viewer's profile. The Examiner asserts that since the characteristics disclosed in Alexander include age, whether the viewer is married and whether the viewer has children, that Alexander discloses selecting demographic groups and that the viewer is assigned to a demographic group. This is not correct as Alexander simply uses the viewer's characteristics of age, marriage and children for creating viewer profiles, not for selecting any groups or associating a viewer with a particular demographic group. This is easily demonstrated since the demographic characteristics would only alter, if at all, the probability of selecting something that the viewer may find interesting.

The present invention uses predetermined information that is external to the system regarding how viewers associated with demographic information have watched programs to define demographic groups, and compares how a current viewer watches a program(s) to associate the current viewer with a particular externally predefined demographic group. Clearly determining personal characteristics is different than how a viewer watches programs, including program "*watch date, watch start time, watch duration and watch channel*" (emphasis added). In Alexander, first, there are no formed groups but only many individual viewer profiles.

Second, characteristics of the viewer's are learned over time, and therefore, cannot be *predefined*.

Based on the above, Alexander, does not teach, disclose or suggest all of Applicant's amended claim 1 limitations of

selecting a plurality of predetermined demographic groups including externally selected characteristics to associate viewers with; recording a viewer's monitor behavior with data item variables including watched channel, watching start time, and at least one of watching date and watching duration; associating a particular demographic group of the plurality of demographic groups with the viewer; from a server-side system, inputting historical data information regarding demographic information tagged to the viewer for the viewer's demographic group; inputting preferred program guide information for the demographic group; and at a client-side system, associating the program guide information with the viewer's monitor behavior and defining therefrom a knowledge base with demographic group cluster information of the viewer in terms of statistical state machine transition models (emphasis added),

Applicant's amended claim 8 limitations of

selecting a plurality of predefined demographic groups including externally selected characteristics, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information; associating a particular demographic group of the plurality of demographic groups with each viewer based on monitor behavior; capturing state transitions by defining monitor behavior in a plurality of statistical state machine families each representing viewing behavior of the particular demographic group; at a client-side system, combining the statistical state machine families into global statistical state machines defined in a global probability density function; updating and reinforcing the global probability density function upon determining that a given probability function has a higher confidence level than a previous probability density function; and outputting a global profile based on the global probability density function, wherein the global profile is suitable for determining programming content of a television server for classes of viewers (emphasis added),

or Applicant's amended claim 31 limitations of "*the selected generated groups are predefined externally to the client-side system and the server-side system*" (emphasis added).

Additionally, claim 27 requires, in part, that "each of the plurality of *demographic groups is defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information*" (emphasis added). Claim 28 requires, in part, "the associating the particular demographic group of the plurality of demographic groups with the viewer is *based on the viewer's monitor behavior*" (emphasis added). Claim 29 requires, in part, "the viewer's monitor behavior is *past monitor behavior*" (emphasis added). Claim 30 requires, in part, "each of the plurality of demographic groups is *selected based on predetermined criteria*" (emphasis added). According to the Examiner, however, a demographic group in Alexander is only defined by demographic information, such as age, married or not, have children or not. Therefore, Alexander cannot teach, disclose or suggest these limitations. Further, there are no groups formed in Alexander, as discussed above. Thus, claims 27-30 are patentable over Alexander for at least these reasons.

In view of the above, Alexander fails to disclose all of the limitations of independent claims 1 and 8 of the present application. Therefore, Applicant respectfully asserts that a *prima facie* rejection under 35 U.S.C. § 102(e) has not been adequately set forth relative to Alexander. Thus, independent claims 1 and 8 are patentable over Alexander for at least the reasons set forth above. Dependent claims 5, 9, 17 and 27-30 are allowable for at least the same reasons.

Accordingly, withdrawal of the rejection of claims 1, 5, 8, 9, 17 and 27-31 is respectfully requested.

Rejections under 35 U.S.C. § 103(a)

Claims 2-4, 10-13, 16 and 22-26

Rejections of claims 2-4, 10-13, 16 and 22-26 are respectfully traversed because for at least the following reasons, Alexander and Grauch, whether considered separately or in combination, fail to show or suggest the claimed invention.

According to MPEP §2142

[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that ‘rejections on obviousness cannot be sustained with mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.’ *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval).

Further, according to MPEP §2143, “[T]he Supreme Court in *KSR International Co. v. Teleflex, Inc.* 550 U.S. ___, ___, 82 USPQ2d 1395-1397 (2007) identified a number of rationales to support a conclusion of obviousness which are consistent with the proper “functional approach” to the determination of obviousness as laid down in *Graham*.” And, according to MPEP §2143.01, [o]bviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006). Further, “[t]he mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary

skill in the art.” *KSR International Co. v. Teleflex, Inc.* 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007).

Additionally, according to MPEP §2143

[a] statement that modification of the prior art to meet the claimed invention would have been “*well within the ordinary skill of the art at the time the claimed invention was made*” because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Pat. App. & Inter. 1993).

Applicant’s claims 2-4 and 22-24 depend from Applicant’s amended claim 1. Applicant’s claims 10-13, 16 and 25-26 depend from Applicant’s amended claim 8. As asserted above, independent claim 1 requires, in part,

selecting a plurality of predetermined demographic groups including externally selected characteristics to associate viewers with; recording a viewer's monitor behavior with data item variables including watched channel, watching start time, and at least one of watching date and watching duration; associating a particular demographic group of the plurality of demographic groups with the viewer; from a server-side system, inputting historical data information regarding demographic information tagged to the viewer for the viewer's demographic group; inputting preferred program guide information for the demographic group; and at a client-side system, associating the program guide information with the viewer's monitor behavior and defining therefrom a knowledge base with demographic group cluster information of the viewer in terms of statistical state machine transition models (emphasis added),

and independent claim 8 requires, in part,

selecting a plurality of predefined demographic groups including externally selected characteristics, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information; associating a particular demographic group

of the plurality of demographic groups with each viewer based on monitor behavior; capturing state transitions by defining monitor behavior in a plurality of statistical state machine families each representing viewing behavior of the particular demographic group; at a client-side system, combining the statistical state machine families into global statistical state machines defined in a global probability density function; updating and reinforcing the global probability density function upon determining that a given probability function has a higher confidence level than a previous probability density function; and outputting a global profile based on the global probability density function, wherein the global profile is suitable for determining programming content of a television server for classes of viewers (emphasis added).

As asserted above, Alexander does not teach the limitations contained in independent claims 1 and 8.

Grauch is relied on for disclosing determining a viewer's viewing habits by tracking clickstream data (Office Action, page 7). Grauch, however, does not teach, disclose or suggest *“selecting a plurality of predetermined demographic groups including externally selected characteristics to associate viewers with”* (emphasis added), as required, in part, by independent claims 1 and 8, respectively.

Applicant notes that Grauch discloses that the individual collected data can be used for correlation to demographic data, which is different from being used to determine demographic data because correlating data to demographic data does not effect the demographic data, at all. (see Grauch, Abstract). Grauch simply tracks changes in use of a multimedia device to generate ratings and may also use the tracked changes for correlation with demographics data for marketing analysis. Marketing analysis, such as whether a viewer watches advertisements, is clearly different than associating a viewer with a demographic group that is defined by *viewing*

monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information, and associating a viewer with a particular demographic group based on viewer monitor behavior (emphasis added).

Therefore, even if the teachings of Alexander are combined with Grauch, the result would not teach, disclose or suggest Applicant's amended claim 1 limitations of "*selecting a plurality of predetermined demographic groups including externally selected characteristics to associate viewers with*" (emphasis added), nor Applicant's amended claim 8 limitations of "*selecting a plurality of predefined demographic groups including externally selected characteristics, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information*" (emphasis added).

Further, the assertions made in the Office Action on pages 10-14 that lead to a conclusion of obviousness are not explicit and the basic requirements of an articulated rationale under MPEP §2142 cannot be found. Additionally, since neither Alexander, Grauch, and therefore, nor the combination of the two, teach, disclose or suggest all the limitations of Applicant's claims 1 and 8, as listed above, Applicant's claims 1 and 8 are not obvious over Alexander in view of Grauch since a *prima facie* case of obviousness has not been met under MPEP §2143. Thus, claims 1 and 8 of the present application are patentable over Alexander and Grauch for at least the reasons set forth above. Additionally, the claims that directly or indirectly depend on amended claims 1 and 8, namely claims 2-4 and 22-24, and 10-13, 16 and 25-26, respectively, are also patentable over Alexander and Grauch for the same reasons as asserted above.

Accordingly, withdrawal of the rejections of claims 2-4, 10-13, 16 and 22-26 is respectfully requested.

Claims 6-7, 14-15 and 18-21

Rejections of claims 6-7, 14-15 and 18-21 are respectfully traversed because for at least the following reasons, Alexander and Konig, whether considered separately or in combination, fail to show or suggest the claimed invention.

Applicant's dependent claims 6-7 and 18-19 either directly or indirectly depend on amended claim 1. Applicant's dependent claims 14-15 and 20-21 either directly or indirectly depend on amended claim 8. Applicant has addressed Alexander above regarding amended claims 1 and 8.

Konig is relied on for disclosing parameterizing a viewer's monitor behavior with a double random pseudo hidden Markov process (Office Action, page 12).

Therefore, even if the teachings of Konig are combined with Alexander, the resulting invention would still not teach, disclose or suggest Applicant's amended claim 1 limitations of

selecting a plurality of predetermined demographic groups including externally selected characteristics to associate viewers with; recording a viewer's monitor behavior with data item variables including watched channel, watching start time, and at least one of watching date and watching duration; associating a particular demographic group of the plurality of demographic groups with the viewer; from a server-side system, inputting historical data information regarding demographic information tagged to the viewer for the viewer's demographic group; inputting preferred program guide information for the demographic group; and at a client-side system, associating the program guide information with the viewer's

monitor behavior and defining therefrom a knowledge base with demographic group cluster information of the viewer in terms of statistical state machine transition models (emphasis added),

nor Applicant's amended claim 8 limitations of

selecting a plurality of predefined demographic groups including externally selected characteristics, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information; associating a particular demographic group of the plurality of demographic groups with each viewer based on monitor behavior; capturing state transitions by defining monitor behavior in a plurality of statistical state machine families each representing viewing behavior of the particular demographic group; at a client-side system, combining the statistical state machine families into global statistical state machines defined in a global probability density function; updating and reinforcing the global probability density function upon determining that a given probability function has a higher confidence level than a previous probability density function; and outputting a global profile based on the global probability density function, wherein the global profile is suitable for determining programming content of a television server for classes of viewers (emphasis added).

Further, the assertions made in the Office Action on pages 15-18 that lead to a conclusion of obviousness are not explicit and the basic requirements of an articulated rationale under MPEP §2142 cannot be found. Additionally, since neither Alexander, Konig, and therefore, nor the combination of the two, teach, disclose or suggest all the limitations of Applicant's claims 1 and 8, as listed above, Applicant's claims 1 and 8 are not obvious over Alexander in view of Konig since a *prima facie* case of obviousness has not been met under MPEP §2143. Thus, claims 1 and 8 of the present application are patentable over Alexander and Konig for at least the reasons set forth above. Additionally, the claims that directly or indirectly depend on amended claims 1 and 8, namely claims 6-7 and 18-19, and 14-15, 16 and 20-21, respectively, are also patentable over Alexander and Konig for the same reasons as asserted above.

Accordingly, withdrawal of the rejections of claims 6-7, 14-15 and 18-21 is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant believes that the rejected claims are in condition for allowance. Reconsideration, re-examination, and allowance of the rejected claims are respectfully requested. If the Examiner feels that a telephone interview may help further the examination of the present application, the Examiner is encouraged to call the undersigned attorney or his associates at the telephone number listed below.

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Respectfully submitted,

/MZ/ 08/06/09

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